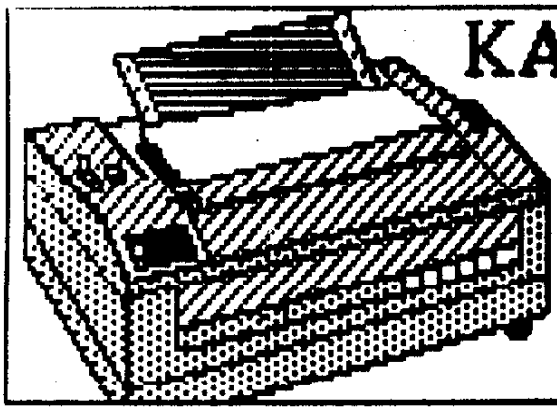

KAWARTHA
99ers
P.O. BOX 373
PETERBOROUGH
ONT. CANADA
K9L 1M1
VOL. 5 NO. 1

EDITOR'S EDICTS

BI PHIL TOWNSEND

ELECTION RESULTS

Congratulations to those who have been elected to guide our small but enthusiastic group for the next twelve months. A personal thanks for the kind words sent my way about our newsletter, however I knew I was being "railroaded" into the position of Newsletter Editor all along! I will be holding the individuals to their promises of writing articals and reviews starting with Glen Daniels who is currently playing with TEII. How about a short write up and a demonstration of what you have learned about the speech capabilities of this software?

PUBLIC PROFILE

March 28th is the scheduled date for our display at the Lansdowne Place Shopping Mall. See Mike McVeigh's artical later in this issue for times and the equipment to be brought. This is the only time during the year that the public get a first hand view of our group and what the TI can do, so let's have a full turn-out and an enjoyable day!

9640 ARRIVES!

Finally, the Myarc 9640 (TI compatible) Family Computer is finding its way to the public! Many of the February and March newsletters have first hand reports of the new machine, all of them favourable so far. If you intend to purchase one you will need the TI PE box to house the card. I understand that Jane LaFlamme of the Ottawa TI group is hoping to distribute them in Canada. For more info on the 9640 borrow the newsletters for the month at the next meeting. The S.M.A.U.G. newsletter is one in particular to look for.

OTHER ARRIVALS

Welcome and congratulations to the following for joining the KAWARTHA 99'ers family go to Gary Bennett, our newest member and to the San Fernando Valley U.G. with whom we are now exchanging newsletters. We now hear from twenty different groups throughout North America and are currently waiting to hear from several others that we have mailed to in the last month. There is certainly no shortage of information concerning our favourite computer!

AND FINALLY

On behalf of the membership I would like to thank Mike Mcveigh for his leadership of the past year and for his continued participation as he assumes the newly made position of Publicity Coordinator.

That's it for now, see you on the 28th,

Phil

KAWARTHA 99ers USER GROUP

FOR USERS OF THE TEXAS INSTRUMENT 99/4A HOME COMPUTER
P.O. BOX 373
PETERBOROUGH, ONT.
CANADA
K9L 1M1

****

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NEWSLETTER EDITOR	PHIL TOWNSEND	745-3757
PUBLICITY COORDINATOR	MIKE McVEIGH	745-9322

****

Meetings are held on the first Wednesday of every month at the Queen Alexandra Community Centre. Meetings begin at 7:00 p.m.

Membership fees are collected on an annual basis of $18.00 per annum or a portion thereof at the rate of $1.50 per month. Memberships are on an individual basis and run annually from the first Wednesday in March.

The opinions expressed in this newsletter are those of the authors and not necessarily of the KAWARTHA 99ers USER GROUP.

Advertisements and contributing articles for this newsletter may be given to the newsletter editor or mailed to the group's P.O. box.

The KAWARTHA 99ers would like to thank those groups who exchange information and newsletters regarding the TEXAS INSTRUMENT HOME COMPUTER with us. We endeavour to recognize original authors and sources of articles of information which we reprint or make available to our membership.

The KAWARTHA 99ers USER GROUP are a non-profit group who welcome any individuals who have an interest in the TEXAS INSTRUMENT HOME COMPUTER.

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WANT ADS

****

VIEWS AND REVIEWS

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MIKE'S MEMOS

It's been a successful and rewarding year for the club. There are new TI products and new interests in the 99/4A. But even more important is the new spirit of the club this year. Everyone contributes. And with the renewed interest, membership is up. As past president, I'd like to thank all club members for a successful and rewarding year. Special thanks to Phil Townsend for his hard work and dedication. His leadership is truly inspirational. I look forward to continued friendship and fun this year.
Thanks for a great year. Congratulations to the new Executive, and to our first woman president!

The treasurer's report reflects a favourable financial picture for the coming year. All the memberships are in bringing our new balance, after expenses, to $270.30 as of March 4, 1987.

Our network of newsletters expanded greatly this year. They contain a wealth of information, and are available at the club library. We hope to expand contact with other clubs this year, as well as improve our own newsletter with added contributions. (Right guys & gals?)

We may have the opportunity to meet our senior friends again this year. An offer has been extended for computer instruction classes, similar to those held last year. The details are being worked out. The last session was educational for us as well. It was also rewarding. They made one of the finest pot luck suppers I've ever eaten.

The upcoming Ottawa TI fair should be a highlight this year, along with other regional generic shows. The date is May 16th. Anyone interested in selling unused TI stock should bring it along. We're trying to get there early before the good sales are gone. Jim Foster is working on the travel and accomodation arrangements. Several members are planning to leave for Ottawa in the early evening of Friday May 15th. Bob Boone is forwarding advance registration forms for accomodation at the at the Talisman Motor Hotel. The host club has arranged good accomodation at a great price. More details will be available at the next club meeting April 1, 1987...no foolin! Those interested so far: Phil, Glen, Mike D, Jan, Lindsay, Steve, Karen & Jim. Jan will be taking her own car.

Our own display and information booth is confirmed for March 28th, at Lansdowne Place. (Further info in newsletter). I know it will be as much fun this year as it was last year. See you there.

Mike McVeigh

****

BITS & PIECES

****

LANSDOWNE PLACE DISPLAY & INFO BOOTH MARCH 28, 1987

NAME:	HARDWARE:
John Baal	1 B&W monitor & cables
Lindsay Brown	1 Jet Pack tm
Glen Daniels	colour TV & console & box
Mike Dunn	1 box
Jim Foster	1 system (box), axiom & printer
Janet McIntyre	2 joysticks, printer & axiom
Mike McVeigh	1 Jet Pack tm & printer
Phil Townsend	1 B&W & 2 colour monitors, expansion box & 2 drives, & track ball
Steve Wright	2 systems (MBX), 1 TV, axiom & printer

//

NAME:	SOFTWARE:
Jim Foster	Graphics, TI Artist, Demo Cart, Software Library Ex Basic
Glen Daniels	Ex Basic
Mike Dunn	Ex Basic
Janet McIntyre	Paint & Print
Mike McVeigh	Miniwriter, Ex Basic, Biorythm (print)
Phil Townsend	Micro Mechanic, Miniwriter, Solitaire, Ex Basic
Steve Wright	MBX software

//

NAME:	TIMES:
Lindsay Brown	10:00 - 3:00
Glen Daniels	9:00 - 12:00
Mike Dunn	9:00 - 12:00
Jim Foster	ALL DAY
Bob Mathews	4:00 - 5:00
Mike McVeigh	ALL DAY
Don Roberts	1:00 - 5:00
Judy Taylor	1:00 - 5:00
Phil Townsend	ALL DAY
Karen Wilson	1:00 - 5:00
Steve Wright	ALL DAY
John Baal	WHENEVER AVAILABLE
Gary Bennett	" "
Jim Lloyd	" "
Janet McIntyre	" "

FROM THE REGINA USER GROUP. . .

The latest word from Texaments on the availability of the Myarc 9640 computer is that the machine would be available in two weeks as of Feb 24th. According to Steven Lamberti of Texaments the machine will be introductory priced at $415.00 (plus $10.00 shipping to Canada) for prepaid orders. The computer's price will jump to $469.95 after it is officially released. All these prices are in U.S. funds. The computer will come bundled with this software:
- Myarc DOS (similar to MS-DOS 2.1)
- Myarc Advanced Basic (upward compatible with TI Extended Basic and Myarc Extended Basic; supports all modes of the V9938 video processor, windows, mouse commands, text and bit mapped graphics, plus special drawing commands.
- Revised TI-Writer that supports 80 Column operation and new commands.
- A cartridge to disk program that allows 99 4/A cartridges to be saved to disk and used with the 9640 computer.
- Pecan Systems UCSD Pascal Runtime package (to allow currently compiled programs written in Pascal to run on the 9640).

The 9640 has a total of 640K of total on board memory; 512K for conventional computer processing, 128K dedicated to video display processing.
The unique feature of the conventional memory is that you can configure parts of the memory for a RAMdisk and print spooling function.
There are many other features contained in the Myarc 9640 computer but they are too numerous to mention here. Texaments are a distributor of the Myarc 9640 Computer (Texaments, 53 Center Street, Patchogue, New York 11772 U.S.A.)

Myarc (241 Madisonville Road, Basking Ridge, NJ 07920 U.S.A.) has announced the availability of a new Eprom for the Foundation 128K memory card that will allow the card to run the new Myarc Extended Basic II software. You can get the Eprom for $10 in U.S. funds with purchase of the new XB.

New Software; Font Writer by Peter Hoddie (Asgard Software. P.O. Box 10306, Rockville, MD 20850 U.S.A. for $24.95 u.s.). In extended basic it is a set of programs that lets you create or edit fonts from TI-Artist or CSGD, (2) a text formatter which allows use of TI Writer files and imbedding of graphics in text, and (3) allows you to keep all these fonts, graphics, and such, well organized.

McCann Software's Printer's Apprentice (McCann Software, P.O. Box 34160, Omaha, Nebraska 68134 U.S.A. $22.50 u.s.). It is written in forth and handles only its own fonts. You cannot import fonts from CSGD files. It has a scheduler function which lets you have great versatility of where place the graphics in your document.

Asgard software also released Total Filer by Warren Agee. (Asgard $24.95 u.s.) It is a free form database written in speedy C99. Total Filer gives you a screen-you put what you want on it. Then give it a title, assign some keywords, and then save it to disk. Then you can search all your records by keywords at any time.

High Gravity, by Tom Wibel (Asgard, $14.95) is both a game and a learning tool as you try to learn the concept of gravity as you try to shoot cargo to a ship stranded in a cluster of planets, each with a variable gravitational field.

Timeline, a Canadian information network now appears to be offline. The network was run out of Montreal and was to be moving to Toronto offices but has not been online for months. Timeline, had a large TI user base across Canada and was the perfect way for TI users to communicate nationwide. Timeline was just starting to get a foothold in Canada.

Dijit Systems has come out with an RGB conversion kit for the 99/4A. (Dijit Systems, 4345 Hortensia Street, San Diego, CA U.S.A.). To hook up your TI to a RGB Monitor you will require a RGB monitor first. Plus a RGB Console Conversion Kit, $35 u.s. and a Video Decoder Interface, $65-$70 depending on the type you require. The RGB Conversion Kit is an internal hardware modification to the console and requires some soldering. Write Dijit for more info and if you already have a RGB monitor, state the make and model.

Myarc's new hard disk controller can controler can control hard disks with capacities of up to 240 megabytes. Myarc is offering a 20 meg hard disk with a 60ms seek time packaged with the controller card for $750 u.s. The hard controller alone is $265 u.s., plus $45 u.s., for cables.

Not-Polyoptic's Spad XIII flight simulator will be available soon. You control a World War I pursuit plane whose mission is to shoot down German planes and balloons and bomb a German airfield. The program apparently does a good job duplicating the environment of flying a light plane.

Texaments announces that Character Sets and Graphic Design User Disk #4 is now available. The two disk package includes 16 new fonts, 11 of which include lower case, and 61 small graphics. Amoung the font types are Artdeco, Cameo, Starlet and Squish. The small graphics include 51 different monograms for creating letterheads and stationery. CSGD #4 is available for $10.95 in u.s. funds.

CorComp is releasing it's new word processing program, Writer-Ease inmid-February according to Jackirae Sagouspe, president of CorComp. The program features a 30,000-word dictionary and spell checker. A single word or an entire document may be checked against the dictionary without the user leaving the edit mode. The user may also see a list of possible words which his misspelled word might be intended to be. List price for the two disk package is $49.95 in u.s. funds, (CorComp, 2211 Winston Rd., Unit G, Anaheim, CA 92806 U.S.A.).

On another note, In a month or two, back issues of The Globe and Mail will be available in a new form-on compact disk. The experiment, among the first of its kind in North America publishing, will put all 1985 issues of The Globe and Mail onto a database for use on compact disks. A single disk can store a years's issue of the newspaper. InfoGlobe, The Globe and Mails online division of the paper reached an agreement with Reteaco Inc., of Toronto last December to put all 1985 issues of The Globe onto a database for compact disks. Licensees must buy a manual or user certificate for each person using the program.

POWER SUPPLY DIAGRAM COMES FROM THE WINNIPEG USER GROUP. . .

NEWSLETTER GLEANINGS

by

Jim Lambert

from THE BOSTON COMPUTER SOCIETY TI-99/4A USER GROUP NEWSLETTER (August 1986):

"c" COLUMN

by Donald L. Mahler

This month we will play with the graphic functions of c.99, which are loaded from the library disk by "#include dsk2.grf1rf". When we "load and run", one of the files entered must be "dsk2.grf1". Please note that from here on, we are using V2.0 of c.99. Most correctly written c.code written for an earlier version can be compiled with the new compiler, but it is less forgiving; for example, all declarations MUST be made before assignments. We CANNOT write:

```
int a; a=0;
char set[];
```

This is not correct practice, but earlier compilers accepted it. ... On the other hand, s.codes compiled with an earlier version of CANNOT be run with new CSUP.

```
/* test of graphic functions */
#include dsk2.grf1rf
#include dsk2.conv1c
#define S 10
main()
{char*r;char*s;char*t;
/* *s is 'value stored at s' */
int u,v,x,y,z,q;
char str[8];x=y=z=u=v=q=0;
s="3C00BDA5A5BD003C";
r="00245A24245A2400";
t="2466C31818C36624";
grf1(); clear();
screen(5);
chrdef(136,s);chrdef(140,r);
chrdef(152,t);
/* these set 136,140,152 to charact
*/
sprite(1,136,7,150,150);
sprite(2,152,11,100,100);
sprite(3,140,16,125,125);
sprite(4,136,8,75,75);
sprite(5,152,9,50,100);
sprite(6,140,12,150,75);
spmag(2); /* sets sprite mag */
spmotn(1,5,5);
spmotn(2,-5,-5);
spmotn(3,3,-5);
spmotn(4,5,10);
spmotn(5,-5,10);
spmotn(6,0,15);
spmct(7); /* starts motion */
while (q<S)
finton(); /* interrupts to keep
sprites moving */
x=spdist(1,2); /* sq of fist 1-2 */
if (x<150)
q=q+1;
y=spdist(2,3);
if (y<150);
q=q+1;
z=spdist(3,4);
if (z<150);
q=q+1;
u=spdist(4,5);
if (u<150)
q=q+1;
v=spdist(5,6);
if (v<150);
q=q+1;}
itod(q,str,8); /* int to char */
puts(" total hits=");
puts(str);putchar('\n');
puts(" that's the end!!");
spdall();}

finton()
{
#asm
LIMI 2
LIMI 0
#endasm
}
```

This program creates sprites, sets them in motion, and keeps track of "near misses". When there have been 10, program ends. This is c.code and must be compiled, with grf1rf and conv1c available on library disk. When "load and run", remember to load grf1 and csup.

A similar function, spcnc() seems to have a bug in it; I could not get a program with it to work. I wrote Clint Pulley, but have not yet received an answer. Next month we shall try something else.

(ED. NOTE: I tried this program myself. Unless I made a mistake in keying the program in or unless there's a bug in it, it executes so quickly that nothing much seems to happen except a very brief (and I mean brief) display of sprites and the end message. However, I found that by defining S as 5000, I could see sprites in motion for about 9-10 seconds. - J.L.)

from SOUTHWEST NINETY-NINERS NEWSLETTER (August 1986):

MULTIPLAN PRINTER COMMAND FILE

MULTIPLAN PRINTER COMMAND FILE is new freeware. This file will allow you to place printer commands into any BLANK cell on your Multiplan spreadsheet. You can turn off and on different commands at any point as long as you have a BLANK cell to copy into. This means the title can be printed in enlargd characters, certain information can be emphasized, italicized, or whatever you want to do, as long as your printer has the ability to do it.

Due to the way that Multiplan works, it is necessary to have the exact printer commands for each printer. The current versions of this program cover the Gemini 10X, Epson, Prowriter, Panasonic KX-P1091, GE TXP-1000, and Seikosha (Gorilla Banana). If you have a different printer, please send a copy of your printer's special commands, and I will be glad to set up a file for you.

The instructions are simple. When you want to use a printer command in your TIMP spreadsheet, make sure you have a BLANK cell to copy into. Press X for eXternal copy, type PRINT, tab and type the name of the command you want to use from the table provided in the documentation for your printer. Then tab AGAIN and press N. You do NOT WANT THIS FILE TO BE LINKed! Once this is done, you are ready to print or add any information you wish. IF you wish to change the printer commands simply BLANK them out and eXternal copy, following the instructions above again.

To get your copy of the MULTIPLAN PRINTER COMMAND FILE send a formatted disk to Jack C. Mathis, 5941 E. 26th, Tucson, AZ 85711.

TRANSFERRING TI MULTIPLAN FILES TO

ANOTHER (NON 99/4A) COMPUTER

by Gary Matthews from A9CUG CALL, Atlanta, Georgia, April 1986

Multiplan spreadsheets can be saved to disk in three basic ways:

1) The standard way, which is how you save it to disk and then bring it back in for normal usage.

2) As a PRINT file which is an ASCII text format which looks like your usual spreadsheet, but has no formulas associated with it.

3) As a SYMBOLIC format which is an ASCII representation of the spreadsheet that does have the formulas and cell formatting intact.

The purpose of the Symbolic format is to allow the spreadsheet to be converted to universal form that is usable by the Multiplan no matter what machine is running it. Restated, that means a Multiplan spreadsheet that was created with a TI 99/4A could be used by an Apple running Multiplan, or an IBM, or in this case by Digital Equipment Corporation's Rainbow computer.

First the spreadsheet is created (on a TI). Then the spreadsheet is saved to disk in 'symbolic' format. Next that 'symbolic' file is transferred to another machine using some communications program (Fast Term for example) that allows the transferring of ASCII files. The Other machine is using a communications program that will capture and put to disk the ASCII file it receives. Now the other machine can run Multiplan and load the file it received in 'symbolic' format. All the formulas are intact. The spreadsheet is a duplicate of the one originally on he TI.

All this is great except for one thing. It doesn't work. The TI Multiplan 'symbolic' format which is supposed to be ASCII isn't. Doing a directory of a 'symbolic' file shows it to be INTERNAL/128. If it were ASCII, it would be DISPLAY/128.

Guy Stefano Romano, who mans the Aminion Helpline 415-753-1455, owns both a TI 99/4A as well as a Rainbow computer. He found he could not transfer his TI Multiplan files to his Rainbow. The standard way to do this with 'symbolic' files did not work. He discovered the reason was because of the information covered five sentences ago, and he found a way to fix it.

NOTE: This is easier to do if the file is copied to an empty disk so your file will be the only one on it. Using a sector editor program (like DISKO), find the 2nd to the last byte of the first line of the file. In HEX, you will see it is an 02. Change it to 00. That will cause the file type to be converted from INT/128 to DIS/128. Now the 'symbolic' file format will BE a true ASCII file and it can be successfully transferred to another type of computer and loaded into Multiplan.

Thanks to Guy for sharing this information.

==========

"I DIDN'T KNOW THAT!"

==========

by BJ Mathis

I recently ran across a short program in Topics - LA 99ers newsletter by Chick De Marti:

```
100 CALL CLEAR :: PRINT "HERE I GO": : :
110 GOSUB 200 DELAY_ROUTINE
:: PRINT "I'M BACK"
120 END
200 FOR D = 1 TO 400 :: NEXT D
210 RETURN
```

In experimenting with the above program Jack and I found that you can put comments after both GOSUB and GOTO. The only stipulation is that the comments must be continuous. That is why the comment above has underline marks ("_") in it. This type of comment or REM statement would be super for keeping track of exactly what the program is going to do when you tell it to GOSUB or GOTO. Try, it really does work!

from TOPICS - LA 99ers (no date) reprinted in NORTHERN NJ NINETY NINER USERS GROUP (August 1986):

ASC and SEG$

You may have seen this routine before.

```
800 INPUT "ANOTHER TRY?":A$
810 IF ASC(SEG$(A$,1,1)=89 THEN It
```

is used to compare the 1st character of a string....instead use:

```
810 IF ASC(A$)=89 THEN 100
```

(ASC only compares one character!)

More on POS

Options are
(C)hange (P)rint
(Q)uit

Instead of:

```
500     ACCEPT    AT(20,10,SIZE(-1)
VALIDATE("CPQ");A$ ::
    IF A$="C" THEN 2000 ELSE
    IF A$="P" THEN 3000 ELSE
    IF A$="Q" THEN 4000

    --- USE ---

    ON      POS("CPQ",A$,1)      GOTO
1000,2000,3000
```

Defining DEFINE

DEF F$=SEG$(Q$,1,N) AND LET F$=SEG$(Q$,1,N) appear to do the same thing...but there IS a difference! The LET command must be read every time a Q$ is encountered. DEF, read once at the beginning of a program, is good whenever Q$ is invoked.

Example

```
100  DEF F$=SEG$(Q$,1,N) :: LET
L$=SEG$(Q$,N+1,LEN(Q$))
110 N=6
120 Q$="FIRST LAST"
130 PRINT F$
140 PRINT L$
150 END
```

Now change the line to read:

```
100  DEF F$=SEG$(Q$,1,N) ::  DEF
L$=SEG$(Q$,N+1,LEN(Q$))
```

and RUN the program...

TIPS FROM THE TIGERCUB

#38

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TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

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```
**********************************
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```

Nuts & Bolts (No. 1), a full disk of 100 Extended Basic utility subprograms in merge format, ready to merge into your own programs. Plus the Tigercub Menuloader, a tutorial on using subprograms, and 5 pages of documentation with an example of the use of each subprogram. All for just $19.95 postpaid.
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For descriptions of these send a dollar for my catalog!

I have discovered a rare bug in the 28-Column Converter, published in Tips #18, which will cause an I/O 25 ERROR if the very last line of the program being converted happens to have exactly 80 characters. You can fix it by adding a line -

```
215 IF EOF(1)=1 THEN 260
```

There is also a rare bug in the SIDEWAYS subroutine on my Nuts & Bolts #2 disk, which prevents turning some redefined character sets sideways. If you are one of those who BOUGHT that disk from me, you can fix it by changing the L=LEN(B$) in line 21639 to L=64.

I was in too much of a hurry to go fishing when I put the last couple of Tips together. In the Gordian Knot in Tips #35, I left out some essential instructions. Please add -

```
131 DISPLAY AT(11,1):" When
you cross your track,":"pres
s O to go over, U to go":"un
der, C to go across."
```

To make that fit, you will have to change the DISPLAY AT in line 130 to (8,1), in line 140 to (15,1) and in line 150 to (20,1), also the ACCEPT At in 160 to (20,11). And this change will prevent a lockup when you reach a border -

```
200 D=D-1 :: IF ABS(D-D2)=2
OR R+(D=1)=0 OR R-(D=3)=25 O
R C+(D=4)=2 OR C-(D=2)=31 TH
EN 160 :: GOSUB 510 :: IF D<
>D2 THEN GOSUB 450
```

I wrote the dulcimer music in Tips #36 in Basic, but I forgot to test it in Basic. It actually runs much better in Extended Basic, but will run fairly well in Basic if you delete the delays in lines 280 and 300.

If you liked the ESCHER ART in Tips #37, these modifications will improve it considerably -

```
110 DISPLAY AT(12,1):"Press
-": :" Q for new pattern":"
B to change background":" F
to change foreground":" R to
 reverse colors": : :"Any ke
y to start"
280 A=INT(6*RND+3):: H=INT(2
4/A):: RX=24-H*A :: HC=INT(2
8/A):: CX=28-HC*A :: W=ABS(H
C/2=INT(HC/2))-(RX>0):: DIM
M(8,8):: FOR P=1 TO A
330 IF K<>66 THEN 346
340 BC=BC+1+(BC=16)*15 :: IF
 BC=F THEN 340 ELSE 347
346 IF K<>70 THEN 360 :: F=F
+1+(F=16)*15 :: IF F=BC THEN
 346
347 FOR S=7 TO 14 :: CALL CO
LOR(S,F,BC):: NEXT S :: GOTO
 310
350 ! **DELETED LINE **
360 IF K<>ASC("R")THEN 310 :
: T=F :: F=BC :: BC=T :: GOT
O 347
600 GOSUB 900 :: FOR T=1 TO
A :: DISPLAY AT(R-1+T,C):M$(
V,T):: NEXT T :: NEXT C
601 IF CX>0 THEN AA=A :: GOS
UB 800
603 GOSUB 1000 :: NEXT R
606 IF RX=0 THEN 610
607 GOSUB 1000 :: FOR C=1 TO
 A*HC STEP A :: GOSUB 900 ::
 FOR T=1 TO RX :: DISPLAY AT
(R-1+T,C):M$(V,T):: NEXT T :
: NEXT C
608 IF CX>0 THEN AA=RX :: GO
SUB 800
800 GOSUB 900 :: FOR T=1 TO
AA :: DISPLAY AT(R-1+T,C):SE
G$(M$(V,T),1,CX);:: NEXT T :
: RETURN
900 V=V+1+(V=4)*4 :: RETURN
1000 V=V+W :: V=V+(V>4)*4 ::
 RETURN
```

I had a letter from a teacher who was using the PRK module to keep student grades, and wanted to know how to average them. It can be done, but is so impractical that I wrote this program. While I was at it, I speeded up the loading and saving to cassette greatly by converting the grades to an ASCII string and combin the student's name and all grades into one record.

```
100 DIM N$(50),T(50,20)
110 CALL CLEAR
120 PRINT "     TEACHER'S
HELPER":: :
130 REM  by Jim Peterson
140 PRINT "(1)CREATE A FILE?
":"(2)ADD TO FILE?":"(3)LOAD
 A FILE?":"(4)SAVE A FILE?":
"(5)PRINT A FILE?"
150 PRINT "(6)CORRECT A FILE
?":"(7)COMPUTE AVERAGES?":"(
8)QUIT?"
160 CALL KEY(0,K,S)
```

```
170 IF (S=0)+(K(49)+(K)56)TH
EN 160
180 ON K-48 GOTO 190,250,610
,680,380,990,1120,1510
190 X=0
200 INPUT "SUBJECT? ":S$
210 GOSUB 1370
220 INPUT "TEST #? ":N
230 GOSUB 1440
240 GOTO 140
250 PRINT :;:"(1)ADD NAMES?"
:"(2)ADD GRADES?"
260 CALL KEY(0,K,S)
270 IF (S=0)+(K(49)+(K)50)TH
EN 260
280 ON K-48 GOTO 290,310
290 GOSUB 1370
300 GOTO 140
310 INPUT "TEST #? ":Q
320 IF T(1,Q)=0 THEN 350
330 PRINT :;:"TEST #";STR$(Q
);" ALREADY RECORDED"
340 GOTO 140
350 N=Q
360 GOSUB 1440
370 GOTO 140
380 CALL CLEAR
390 PRINT "OUTPUT TO":"(1)SC
REEN?":"(2)PRINTER?"
400 CALL KEY(0,K,S)
410 IF (S=0)+(K(49)+(K)56)TH
EN 400
420 IF K=49 THEN 460
430 INPUT "PRINTER DESIGNATI
ON? ":P$
440 OPEN #2:P$
450 F@=2
460 PRINT "PRESS ANY KEY TO
PAUSE": :
470 PRINT #F@:S$: :
480 FOR J=1 TO X
490 PRINT #F@:"";N$(J)&" ";T
AB(18);
500 FOR K=1 TO HN
510 PRINT #F@:T(J,K);
520 NEXT K
530 CALL KEY(0,K,S)
540 IF S<>0 THEN 530
550 NEXT J
560 PRINT #F@
570 IF F@=0 THEN 140
580 F@=0
590 CLOSE #2
600 GOTO 140
610 PRINT :;:"(1)CASETTE?":"
(2)DISK?"
620 CALL KEY(0,K,S)
630 IF (S=0)+(K(49)+(K)50)TH
EN 620
640 ON K-48 GOTO 650,670
650 OPEN #2:"CS1",INPUT ,FIX
ED
660 GOTO 690
670 INPUT "FILENAME? DSK":F$
680 OPEN #2:"DSK"&F$,INPUT
690 INPUT #2:X,HN,S$
700 FOR J=1 TO X
710 INPUT #2:K$
720 N$(J)=SEG$(K$,1,POS(K$,C
HR$(255),1)-1)
730 K$=SEG$(K$,POS(K$,CHR$(2
55),1)+1,255)
740 FOR K=1 TO HN
750 T(J,K)=ASC(SEG$(K$,K,1))
-50
760 NEXT K
770 NEXT J
780 CLOSE #2
790 GOTO 140
800 PRINT :;:"(1)CASETTE?":"
(2)DISK?"
810 CALL KEY(0,K,S)
820 IF (S=0)+(K(49)+(K)50)TH
EN 810
830 ON K-48 GOTO 840,860
840 OPEN #2:"CS1",OUTPUT,FIX
ED
850 GOTO 880
860 INPUT "FILENAME? DSK":F$
870 OPEN #2:"DSK"&F$,OUTPUT
880 PRINT #2:X:HN:S$
890 FOR J=1 TO X
900 K$=""
910 FOR K=1 TO HN
920 K$=K$&CHR$(T(J,K)+50)
930 NEXT K
940 PRINT #2:N$(J)&CHR$(255)
&K$
950 K$=""
960 NEXT J
970 CLOSE #2
980 GOTO 140
990 CALL CLEAR
1000 INPUT "STUDENT'S NAME?
":Q$
1010 FOR J=1 TO X
1020 IF N$(J)=Q$ THEN 1060
1030 NEXT J
1040 PRINT :;:"NAME NOT FOUN
D": :
1050 GOTO 140
1060 INPUT "CORRECT WHICH TE
ST? (0 TO QUIT) ":C
1070 IF C=0 THEN 1110
1080 PRINT :;:N$(J);"'S TEST
#";STR$(T(J,C)): :
1090 INPUT "CORRECT TO? ":T(
J,C)
1100 GOTO 1060
1110 GOTO 140
1120 CALL CLEAR
1130 PRINT "OUTPUT TO":"(1)S
CREEN?":"(2)PRINTER?"
1140 CALL KEY(0,K,S)
1150 IF (S=0)+(K(49)+(K)50)T
HEN 1140
1160 IF K=49 THEN 1200
1170 INPUT "PRINTER DESIGNAT
ION? ":P$
1180 OPEN #2:P$
1190 F@=2
1200 PRINT #F@:S$
1210 FOR J=1 TO X
1220 PRINT #F@:N$(J);" AVERA
GE ";
1230 FOR K=1 TO HN
1240 TT=TT+T(J,K)
1250 NEXT K
1260 AV=TT/HN
1270 TAV=TAV+AV
1280 PRINT #F@:AV
1290 TT=0
1300 NEXT J
1310 PRINT #F@:"CLASS AVERAG
E ";TAV/X
1320 TAV=0
1330 IF F@=0 THEN 1360
1340 F@=0
1350 CLOSE #2
1360 GOTO 140
1370 PRINT :;:"STUDENT'S NAM
ES - ":"type END when finish
ed": :
1380 X=X+1
1390 M$="NAME #"&STR$(X)&" "
1400 INPUT M$:N$(X)
1410 IF N$(X)<>"END" THEN 13
80
1420 X=X-1
1430 RETURN
1440 FOR J=1 TO X
1450 M$=N$(J)&"'S GRADE? "
1460 INPUT M$:T(J,N)
1470 NEXT J
1480 IF N<HN THEN 240
1490 HN=N
1500 RETURN
1510 END
```

The reason that 5@ is added to the value in line 920, before saving, and subtracted again in line 730 after loading, is because of a quirk of the computer that I don't recall seeing in print anywhere. Did you know that INPUT will read a string beginning with ASCII 0, 2, 4, 7, 10, 12, 14, 18, 26, 27, 31, 32, or 44 as a null string (a blank), and will drop these characters at the end of a string? And ASCII 32 will be dropped at the beginning or end of a string. And ASCII 0 within a string, or ASCII 34 anywhere, will crash, while ASCII 44 within a string will lose the rest of the string. I should have known what ASCII 0, 32 (the space), 34 (quotes) and 44 (comma) would do, but why the others?

LINPUT will accept anything, of course, but I wanted to keep this in BASIC for the teachers who are struggling along without the XBasic module or disk drive.

Chick De Marti published in LA 99ers TOPICS the surprising discovery that PRINT USING and DISPLAY USING can read the IMAGE format from a variable, array or string!

Which led me to some fooling around -

```
100 !PRINT USING DEMO by Jim
 Peterson, based on a discov
ery by Chick De Marti
110 CALL CLEAR :: RANDOMIZE
:: CALL SCREEN(5):: FOR S=2
TO 14 :: CALL COLOR(S,S,S)::
 NEXT S
120 N=INT(13*RND+1):: C$=CHR
$(8*N+32-(N=4)*11)
130 FOR J=N TO 12 :: A$=RPT$
(" ",J)&"@"&RPT$(" ",26-J*2)
&"@" :: PRINT USING A$:C$,C$
 :: NEXT J
140 FOR J=12 TO N STEP -1 ::
 A$=RPT$(" ",J)&"@"&RPT$(" "
,26-J*2)&"@" :: PRINT USING
A$:C$,C$ :: NEXT J :: GOTO 1
20
```

Here is one last Tigercub challenge. What is the longest possible one-liner? And what is the longest possible one-liner that actually does something?

MEMORY FULL

Jim Peterson

Thanks to LA 99ers another little gem! It's making its rounds. Thought you might be interested. Ed.

Topics - LA 99ers

```
* DISK TO TAPE AND TAPE TO DISK CONVERSION PROGRAM
* TOM FREEMAN
* 515 ALMA REAL DR.
* PACIFIC PALISADES, CA 90272
* FOR USE WITH PROGRAMS MEANT TO BE LOADED BY THE RUN
* PROGRAM FILE OPTION (#5) OF E/A.  IT MAY BE USED FOR
* OTHER, NON STANDARD, FILES.  BUT IN THAT CASE THE TWO
* INSTANCES OF BL @CHANGE SHOULD BE DELETED, AND THE
* 4TH WORD OF EACH PAB SHOULD BE REPLACED BY >XX00,
* WHERE >XX IS THE HEX EQUIVALENT OF THE NUMBER OF
* SECTORS TAKEN UP BY THE PROGRAM (PER DISK CATALOG)
* MINUS 1.  IF THE ORIGINAL FILE IS ON TAPE AND THIS
* NUMBER IS NOT KNOWN, USE >2F, THEN CHECK THE DISK
* FILE WITH A SECTOR EDITOR TO SEE WHERE 00'S BEGIN.
* THE PROGRAM CAN THEN BE RERUN WITH THE PROPER NUMBER.
* NOTE: BECAUSE OF THE REF'S TO GPLLNK AND DSRLNK, THE
* PROGRAM WILL ONLY WORK WITH E/A.  IT IS CALLED FROM
* BASIC - LISTING FOLLOWS.
       DEF  DISTAP,TAPDIS
       REF  DSRLNK,GPLLNK,VMBW,VMBR
STATUS EQU  >837C
FAC    EQU  >83AA
PAB    EQU  >0F80
PNTR   EQU  >835E
WS     EQU  >8300
       ADDG >3000
*
* THE FOLLOWING IS THE DISK FILE
* AND HAS BEEN PREPARED FROM BASIC
*
PABDSK DATA >0500,>1000,0,>2000
       BYTE 0
       BYTE 0              LENGTH BYTE
       BSS  15             FILE NAME
*
* THE FOLLOWING IS THE CASSETTE FILE
* NOTE: IF USING CS1 FOR INPUT IN "RUN PROGRAM FILE" IN E/A
* USE CS1.X AS DEVICE NAME, NOT CS1
*
PABCS  DATA >0800,>1000,0,>2000,>6003    LAST WORD IS SCR OFFSET & LEN BYTE
CS1    TEXT 'CS1'
SAVE   BYTE >08
LOAD   BYTE >05
SAVRTN DATA 0
DISK   LI   0,PAB
       LI   1,PABDSK       LOAD PAB FOR DISK FILE
       LI   2,25
       BLWP @VMBW
       LI   8,PAB+9
       MOV  8,@PNTR
       BLWP @DSRLNK
       DATA 8              MOVE FILE TO VDP AT >1000
       RT
CHANGE LI   0,>1002        2ND WORD CONTAINS # BYTES IN FILE
       LI   2,2            AND BELONGS IN 4TH WORD OF PAB(R1)
       BLWP @VMBR
       RT
TAPE   LI   0,PAB
       LI   1,PABCS
       LI   2,13
       BLWP @VMBW          SET UP CASSETTE PAB TO SAVE
       LI   1,PAB+13       1ST CHAR AFTER PAB MUST BE AT PNTR
       MOV  1,@PNTR
       LI   1,>0800
       MOVB 1,@>836D       >836D MUST CONTAIN 8 (DSR CALL)
       LI   0,PAB+10
       LI   1,FAC
       LI   2,3
       MOV  2,@PNTR-2      >8345-6 MUST CONTAIN NAME LEN (3)
       BLWP @VMBR          FAC MUST CONTAIN DEVICE NAME
       CLR  @>83D0         >83D0 MUST CONTAIN 0
       MOVB @>83D0,@STATUS CLEAR STATUS BYTE
       BLWP @GPLLNK        BRANCH TO THE DSR
       DATA >8B
       RT
DISTAP MOV  11,@SAVRTN
       LWPI WS
       MOVB @LOAD,@PABDSK  PREPARE DISKFILE FOR LOAD
       MOVB @SAVE,@PABCS     "    TAPE "   "  SAVE
       BL   @DISK
       LI   1,PABCS+8
       BL   @CHANGE
       BL   @TAPE
       JMP  RETURN
TAPDIS MOV  11,@SAVRTN
       LWPI WS
       MOVB @LOAD,@PABCS   PREPARE TAPEFILE FOR LOAD
       MOVB @SAVE,@PABDSK    "    DISK "   "  SAVE
       BL   @TAPE
       LI   1,PABDSK+8
       BL   @CHANGE
       BL   @DISK
RETURN CLR  0
       MOVB 0,@STATUS
       MOV  @SAVRTN,11
       RT                  RETURN FROM THIS PROGRAM
       END
```

```
*****************************************************************
this is the basic progras that runs the above file,
if it is assembled under the name DISKTAPE/O
*****************************************************************
100 DNAME=4096+5+9
110 CALL INIT
120 CALL LOAD("DSK1.DISKTAPE/O")
130 INPUT "DISKFILE TO SAVE/LOAD      ":NAME$
140 LE=LEN(NAME$)
150 CALL LOAD(DNAME,LE)
160 FOR X=1 TO LE
170 CALL LOAD(DNAME+X,ASC(SEG$(NAME$,X,1)))
180 NEXT X
190 PRINT :"PRESS  D. DISK TO TAPE":" OR    T. TAPE TO DISK"
200 CALL KEY(0,K,S)
210 IF S=0 THEN 200
220 IF K=68 THEN 260
230 IF K<>84 THEN 200
240 CALL LINK("TAPDIS")
250 GOTO 270
260 CALL LINK("DISTAP")
270 PRINT :"DO ANOTHER? Y/N":::
280 CALL KEY(0,K,S)
290 IF S=0 THEN 280
300 IF K=89 THEN 130
310 IF K<>78 THEN 280
320 STOP
```

T.U. MAN

BY DAVID KOPPERMAN